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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,258	01/30/2006	Toru Yano	8007-1105	1688

466 7590 01/31/2007  
YOUNG & THOMPSON  
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ARLINGTON, VA 22202

EXAMINER
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ANGEBRANDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,258	<b>Applicant(s)</b> YANO ET AL.	
	<b>Examiner</b> Martin J. Angebrannt	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/30/06 & 4/28/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/30/06 &amp; 4/28/06</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 should indicate that when the other paired groups are not a pair of benzyl groups, then these each are an alkyl group of 1 to 4 carbon atoms or are connected together to form a 3 to 6 member ring. (other wise claims 2 is not further limiting)

It is not clear if this claims is directed to the cyanine compound alone “for use in ..”, or to the medium “and being used in the optical recording layer”. For the purposes of examination on the basis of prior art, the examiner has interpreted it both ways. (claims 4)

3. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 1 makes no provision for both paired groups being pairs of benzyl moieties as recited in claim 2.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano JP 2003-231359.

Yano JP 2003-231359 (machine translation provided) teaches trimethine indolenic cyanine dyes where the R1 may be alkyl, and R2 or R3 can be C1-4 alkyl, benzyl, or connected to form a 3-6 member ring. (abstract and [0008]). These are used in optical recording media as evidenced by section [0068].

It would have been obvious to modify dye No 34 [0022] by replacing the methyl moiety in the R2 position with a benzyl moiety with a reasonable expectation of forming a useful trimethine indolenic cyanine dye on the basis of the disclosure of equivalence in the cited text and further to use it to form an optical recording medium with a reasonable expectation of success in forming a useful medium.

The claims do not specify that the alkyl groups are unsubstituted and therefore the claims are held to embrace the case where methyl (C1) is substituted by phenyl.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al. JP 2003-335061.

Yano et al. JP 2003-335061 (machine translation provided) teaches trimethine indolenic cyanine dyes where the C substituents on the indole ring may be alkyl, benzyl, or connected to form a cycloalkyl ring. [0011-0016]. These are used in optical recording media as evidenced by section [0055-0061].

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It would have been obvious to modify dye No 19 [0024] by replacing the methyl moieties with benzyl moiety with a reasonable expectation of forming a useful trimethine indolenic cyanine dye on the basis of the disclosure of equivalence in the cited text and further to use it to form an optical recording medium with a reasonable expectation of success in forming a useful medium.

8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of (Tominaga et al. JP 2000-108510, Hamada et al. JP 2000-168233 108510 or Tominaga et al. 2000-289335), in view of Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793 and Sakai et al. JP 58-021746.

Tominaga et al. JP 2000-108510 (machine translation attached) teaches optical recording media using the indolenic trimethine cyanine dyes of formula I, where A may be phenyl and X may be methylene to form a benzyl moiety. Further, this may be substituted by halogen, alkyl, alkenyl, alkenoxy, or alkoxy. (abstract and [0018-0021]. See dye 3 has N- ethylphenyl substituents. The media have high photostability, preservation stability and solubility (abstract and [0015]).

Hamada et al. JP 2000-168233 (machine translation attached) teaches optical recording media using the indolenic trimethine cyanine dyes of formula I, where Y1-Y3 may be formula III, where R4 is phenyl and l is one, m is zero to form a benzyl moiety. Further, this may be substituted by halogen, alkyl, alkenyl, alkenoxy, or alkoxy. (abstract and [0018-0021]. See dyes 7 and 10 which have N- ethylphenyl substituents. The resulting media have high stability and reliability (abstract and [0011])

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Tominaga et al. 2000-289335 (machine translation attached) teaches optical recording media using the indoleneic trimethine cyanine dyes of formula I, where R<sub>2</sub> may be phenyl, l may be zero and R<sub>1</sub> may be methylene to form a benzyl moiety. Further, this may be substituted by nitro, cyano, halogen, alkyl, alkoxy or the like. (abstract and [0018-0021]. See dye 3, which has N- ethylphenyl substituents. The media have high photostability, preservation stability and solubility (abstract and [0015]).

Nagatani et al. JP 10-278426 (machine translation provided) teaches optical recording media with the indoleneic trimethine cyanine dyes of formula 1 where R<sub>1</sub>-R<sub>6</sub> can be hydrogen, alkoxy, alkoxy, alkylhydroxy, aralkyl, alkenyl, alkylcarbonyl or alkylsulfonyl. (abstract and 0011))

JPO Abstract of JP 03-224793 (but not the document itself) teaches that R<sub>1</sub>-3 can be C<sub>1</sub>-8 alkyl, phenyl or benzyl. (© is 1991).

Sakai et al. JP 58-021746 teaches a cyanine analog where the terminal moieties are indolenic. Dyes H-11 and H-12 (page 3) show the benzyl moieties as N substituents. Dye H-10 shows wehre the benzyl moieties are bound to the carbon adjacent to the linkage binding the two terminal moieties.

It would have been obvious to one of ordinary skill in the art to modify dye 3 of Tominaga et al. JP 2000-108510, dye 7 or 10 of Hamada et al. JP 2000-168233 or dye 3 of Tominaga et al. 2000-289335 by forming the benzyl analogs where two benzyl moieties are bound to the carbon of the indolene ring in place of an alkyl moiety to form the dyes of the claims and to use these in optical recording media with a reasonable expectation of realizing the benefits ascribed to these dyes by Tominaga et al. JP 2000-108510, Hamada et al. JP 2000-

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168233 108510 or Tominaga et al. 2000-289335 based upon the known use of aralkyl moieties in both locations as evidenced by Nagatani et al. JP 10-278426 and specifically benzyl moieties as disclosed in JPO Abstract of JP 03-224793 and the indoleneic dyes of Sakai et al. JP 58-021746 which bear paired benzyl moieties.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al. JP 2003-335061, combined with JPO Abstract of JP 03-224793 and Sakai et al. JP 58-021746.

It would have been obvious to one skilled in the art to modify the cited examples of Yano et al. JP 2003-335061 by using similar dyes where the benzyl group are paired based upon the known use of aralkyl moieties in both locations as evidenced by Nagatani et al. JP 10-278426 and specifically benzyl moieties as disclosed in JPO Abstract of JP 03-224793 and the indoleneic dyes of Sakai et al. JP 58-021746 which bear paired benzyl moieties.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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11. Claims 1 and 3-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of copending Application No. 10/973444 (US 2005/0094548). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims embrace the case where the R1 and R2 of formula 2 and/or R2 and R3 of formula 1 are benzyl moieties.

The claims do not specify that the alkyl groups are unsubstituted and therefore the claims are held to embrace the case where methyl (C1) is substituted by phenyl.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1 and 3-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 11/257325 (US 2006/0110566). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims embrace the case where the R2 and R3 of formula 2 and/or formula 1 are benzyl moieties.

The claims do not specify that the alkyl groups are unsubstituted and therefore the claims are held to embrace the case where methyl (C1) is substituted by phenyl.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/899027 (US 2005/0031993). Although the conflicting claims are not identical, they are not patentably



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distinct from each other because the claims embrace the case where the R1 and R2 and/or R3 and R4 of formula I are benzyl moieties.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 03-224793 is also made of record, although the abstract is relied upon instead of the reference for the teaching.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'M. Angebranndt', written over the printed name.

Martin J. Angebranndt  
Primary Examiner  
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